Replacement of paragraph commencing at page 1, line 3:

Method of Controlling the Revolutions of the Drum
of a Program Controlled Laundry Machine

Replacement of paragraph commencing at page 1, line 26:

When textiles are being washed, the mechanical action affecting the laundry is one of the significant factors in terms the result of the washing operation. To provide the ~~strongest possible~~ most efficient washing ~~mechanics~~ action in a washing machine equipped with a horizontally or at least approximately horizontally suspended rotary drum, individual pieces of the laundry should be moved to about the 12-o'clock-position and then, upon release from the wall of the drum, drop down in consequence of gravity. This is brought about by the centrifugal force of the laundry being slightly less than the gravity of the earth. Since the centrifugal force is a function of the distance of a piece of laundry from the rotational axis of the drum, a rotational cycle implemented at a predetermined constant rotational speed is of advantage only in respect of those laundry pieces which have moved to a certain distance from the axis of the drum. The standard value of this distance is assumed to be the same as the radius of the drum. Laundry closer to the axis of the drum drops substantially sooner, i.e. it separates at the 9- or 10-o'clock- position, and instead of a dropping movement, it goes through a rolling movement.

Replacement of paragraph commencing at page 5, line 6:

The laundry machine shown in Fig. 1 is a washing machine provided with a suds basin 2 in which a drum 3 for receiving laundry is rotatably mounted. For washing, water and detergent are fed to the suds basin 2 by way of a drawer 4a of a detergent flushing compartment 4. While detergent is being dispensed, the drum 3 is alternatingly rotated in opposite directions by a drive motor 5. The suds basin 2 is suspended for oscillatory movements by springs 6, and, for attenuating the oscillations, it is supported at its lower section by shock absorbers 7 connected to the bottom of the housing 1a. ~~The~~ While the machine is in operation, the suds basin 2 is closed by a door (not shown) mounted at the front wall of the housing. The door is kept in its locked condition by an electromagnetic latching device 8.

Replacement of paragraph commencing at page 5, line 17:

A microprocessor control 9 is provided for controlling the various washing programs. It is connected to a plurality of sensors and servo-elements (not shown). From time to time it issues time and condition ~~depending~~ dependent signals by way of control line 10b to different actuators such as, for instance, the motor 5, the latching device 8, valves (not shown), heating elements and pumps (not shown), and it also functions as a control unit for energizing the motor to run at different rotational speeds and in alternating directions. For instance, during at least part of a washing operation, the drum 3 is rotated in alternating directions with idle periods between individual rotating cycles. The applied pattern or profile of rotations will be described hereinafter. The microprocessor control 9 is provided with read-only memories (ROM) 9a-c.

Replacement of paragraph commencing at page 5, line 29:

One of the sensors of the washing machine constructed in accordance with the invention is a weight sensor 11 for determining the ~~quantity~~ weight of the laundry within the drum 3. The sensor may, for instance, be a torsion balance or spring scale 11 mounted in a well-known manner parallel to a shock absorber 7 for measuring the height or level of the suds basin as a function of the weight of the laundry. Other sensors (not shown) such as expansion strips may also be used. The microprocessor control 9 determines, and reads into memory, a load step B_s on the basis of the static portion of a displacement signal from the torsion balance 11 which corresponds to the weight of the laundry within the drum 3.

Replacement of paragraph commencing at page 6, line 16:

After sensing the load step by the weight sensor or evaluation circuit the rotational cycles within a washing program are adjusted to the quantity of laundry in the drum 3. For this purpose, the microprocessor control 9, as the control device of the drive motor 5, sets, as a function of the stored load step value B_S, a lower value n_{min} and upper value n_{max} ~~of rotations~~ as upper and lower limits of the rotational ~~speeds~~ speed of the drum 3 during the washing operation~~, as a function os the stored load step value~~ B_S, as shown in the following table:

Replacement of paragraph commencing at page 6, line 29:

The range of rotational speeds thus set ~~in dependence~~ as a function of the load step is executed as the substantially trapezoidal pattern or profile shown in Fig. 2. Alternatively, the profile of rotations may have an ascending and a descending slope, or it may assume the shape of a roof.

Replacement of paragraph commencing at page 7, line 5:

The structuring of the method as provided by the invention takes into consideration the fact that laundry is distributed in several layers at different radii relative to the circumference of the drum, the number of layers being dependent upon the ~~quantity~~ size of the load. As a result of the load-related variation in the number of rotations during a cycle of rotations, each layer of laundry is optimally agitated. At very small loads slow rotations at a narrow range between lower and upper values of rotational ~~speeds~~ speed is utilized to ensure that the laundry is released from the wall of the drum and that high washing mechanics or action are achieved nevertheless. Thus, the profile or pattern of the rotations resembles a relatively flat trapezoid (see the dash-dotted line I in Fig. 2). At medium loads the range of rotations may be increased up to 60 min^{-1} since ~~engagement~~ adherence of the laundry ~~with~~ against the wall of the drum occurs only at values higher than ~~this~~ 60 min^{-1} (see the dashed line II trapezoid in Fig. 2). At large loads a wide band width or range of rotations is required since the laundry in the drum is stacked in several layers so that the centrifugal forces within these layers vary widely (see the solid line trapezoid III in Fig. 2). By initially increasing the number of rotations from 30 to 80 rpm, the laundry in the outer area is agitated strongly. By increasing the number of rotations, the laundry will be forced into engagement with the wall of the drum, and laundry disposed further inwardly, i.e. closer to the center of rotation, is lifted to the 12 o'clock position, and because of the engagement of the outer laundry with the wall of the drum, more drop-down space is available for the inwardly disposed laundry. ~~Yet another~~ A further increase in the number of rotations causes the effect ~~to move~~ of being displaced further towards the center of the drum. Thereafter, the laundry in the outer layer is again released ~~again~~ from the wall of the drum by reducing the number of rotations.

Replacement of paragraph commencing at page 8, line 19:

After sensing the ~~quantity~~ weight of the load and/or any residual wetness, the number of rotations within individual ~~parts~~ segments of the drying program ~~are~~ is adjusted to the quantity or residual wetness of laundry in the drum 14. For this purpose, the microprocessor control 9, as the control unit for setting the drive motor 14 in accordance with dryer-~~specifically~~ specific stored load quantities and residual wetness stages, sets lower limits n_{min} and upper limits n_{max} for the rotational speed of the drum.